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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/743,522	12/23/2003	Takeshi Shibata	04329.3210	7673

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WASHINGTON, DC 20001-4413

EXAMINER
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NGUYEN, KHIEM D

ART UNIT	PAPER NUMBER
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2823

DATE MAILED: 12/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

AK

<b>Office Action Summary</b>	Application No. 10/743,522	Applicant(s) SHIBATA ET AL.	
	Examiner Khiem D. Nguyen	Art Unit 2823	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 December 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) 29-34 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-28 and 35 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>12/23/03, 03/25/05, 11/09/05</u> | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION*****Election/Restrictions***

Applicant's election without traverse of Group I, claims 1-28 and 25 in the reply filed on October 28<sup>th</sup>, 2005 is acknowledged.

***Oath/Declaration***

The oath/declaration filed on June 2<sup>nd</sup>, 2004 is acceptable.

***Information Disclosure Statement***

The Information Disclosure Statement filed on 12/23/03, 03/25/05, and 11/09/05 has been considered.

***Claim Rejections - 35 USC § 102***

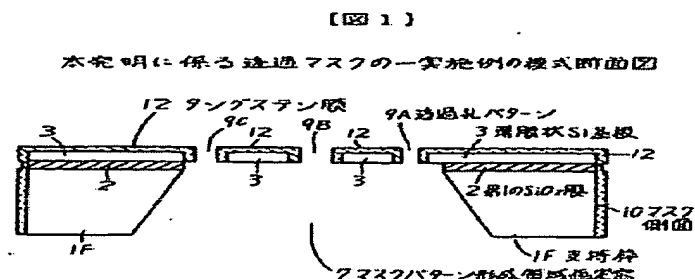
The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-28 and 35 are rejected under 35 U.S.C. 102(b) as being anticipated by Satoru et al. (Japan Publication 06-244091).

In re claim 1, Satoru discloses a stencil mask comprising: a conductive thin film 3 (Si) with openings 9A-C in the film;



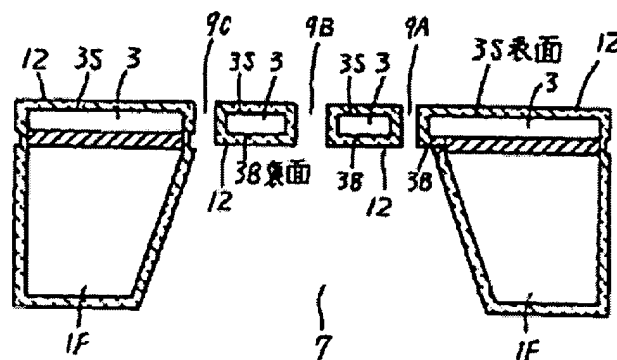
an insulating film 2 ( $\text{SiO}_2$ ) formed in the region of conductive thin film excluding the openings 9A-C (Detailed Description, page 3, paragraph [0021] and FIG. 1);

a conductive support 1f formed on the insulating film 2; and

a conducting member 12 which is formed through the insulating film 2 and which connects the conductive support 1f and the conductive thin film 3 electrically (Detailed Description, pages 3-4, paragraph [0022] and FIG. 2).

【図 2】

本発明に係る透過マスクの他の実施例の模式断面図



In re claim 2, Satoru discloses that the electrical conductivity of the conducting member 12 (W) is equal to or higher than that of each of the conductive thin film 3 (Si) and the conductive support 1f (Si) (pages 3-4, paragraphs [0021]-[0022]).

In re claim 3, Satoru discloses that the conductive thin film 3 and the conductive support 1f are made of silicon (page 3, paragraph [0022]).

In re claim 4, Satoru discloses that the conducting member 12 is made of tungsten (W) (page 3, paragraph [0022]).

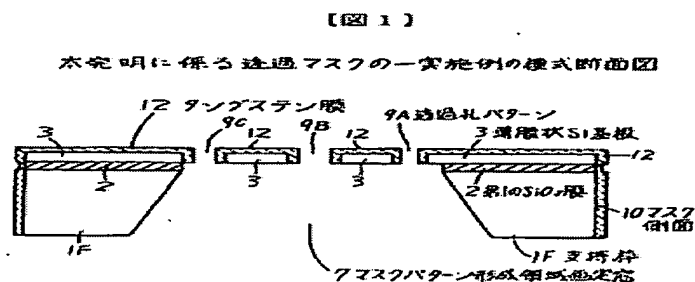
In re claim 5, Satoru discloses that the stencil mask according to claim 1, further comprising silicon or silicide formed on the surface of the conducting member (FIG. 2).

In re claim 6, Satoru discloses that the conducting member 12 is formed in the conductive support 1f (FIG. 2).

In re claim 7, Satoru discloses that the conducting member 12 is formed in the conductive thin film 3 (FIG. 2).

In re claim 8, Satoru discloses that the conducting member 12 is formed on and in the conductive thin film 3 (FIG. 2).

In re claim 9, Satoru discloses that a stencil mask comprising: a conductive thin film 3 (Si) which has a first region (middle region) and a second region (peripheral region) outside the first region, the first region including a plurality of first openings 9A-C; an insulating film 2 ( $\text{SiO}_2$ ) which is formed in a region corresponding to the second region of a first side of the conductive thin film 3 (Detailed Description, page 3, paragraph [0021] and FIG. 1);

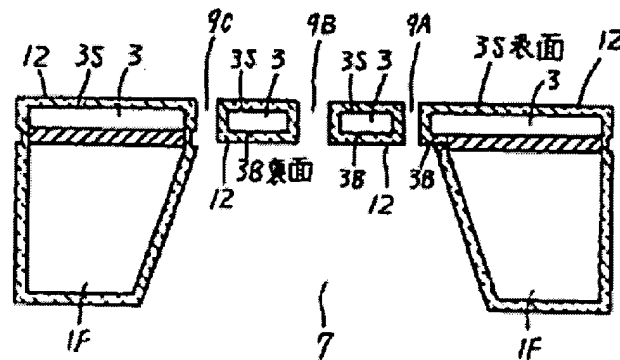


a conductive support 1f which is formed in a region corresponding to the second region of the conductive thin film 3 via the insulating film 2; a second opening 7 which is formed through the conductive support 1f and the insulating film 2; and a conducting member 12 which is provided in the second opening 7 and which connects the conductive

thin film 3 and the conductive support 1f electrically (Detailed Description, pages 3-4, paragraph [0022] and FIG. 2).

【図 2】

本発明に係る透過マスクの他の実施例の模式断面図



In re claim 10, Satoru discloses that the electrical conductivity of the conducting member 12 (W) is equal to or higher than that of each of the conductive thin film 3 (Si) and the conductive support 1f (Si) (pages 3-4, paragraphs [0021]-[0022]).

In re claim 11, Satoru discloses that the conductive thin film 3 and the conductive support 1f are made of silicon (page 3, paragraph [0022]).

In re claim 12, Satoru discloses that the conducting member 12 is made of tungsten (W) (page 3, paragraph [0022]).

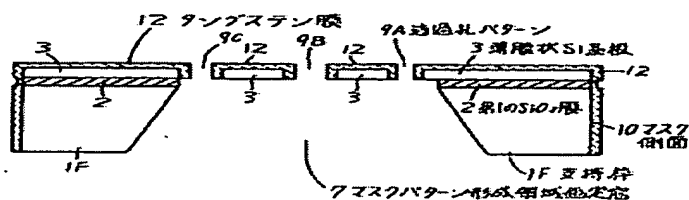
In re claim 13, Satoru discloses that the stencil mask according to claim 9, further comprising silicon or silicide formed on the surface of the conducting member (FIG. 2).

In re claim 14, Satoru discloses a stencil mask comprising: a conductive thin film 3 (Si) which has a first region (middle region) and a second region (peripheral region), the first region including a plurality of first openings 9A-C; an insulating film 2 formed

corresponding to the second region of the conductive thin film 3 (Detailed Description, page 3, paragraph [0021] and FIG. 1);

【図 1】

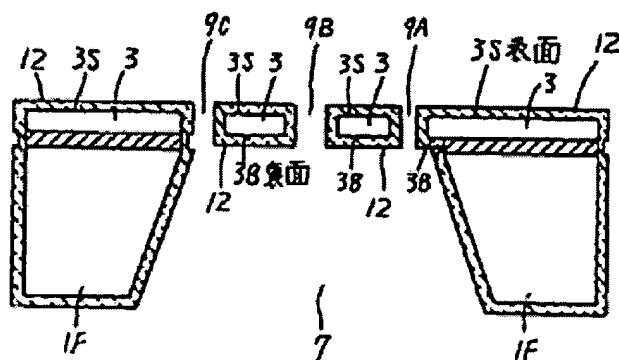
本発明に係る透過マスクの一実施例の模式断面図



a conductive support 1f formed on the insulating film 2; a second opening 7 made in the conductive thin film 3 and the insulating film 2 in the second region of the conductive thin film; and a conducting member 12 which is formed in the second opening 7 and which connects the conductive thin film 3 and the conductive support 1f electrically (pages 3-4, paragraph [0022] and FIG. 2).

【図 2】

本発明に係る透過マスクの他の実施例の模式断面図



In re claim 15, Satoru discloses that the electrical conductivity of the conducting member 12 (W) is higher than that of each of the conductive thin film 3 (Si) and the conductive support 1f (Si) (Detailed Description, pages 3-4, paragraphs [0021]-[0022]).

In re claim 16, Satoru discloses that the conductive thin film 3 and the conductive support 1f are made of silicon (Detailed Description, page, paragraph [0022]).

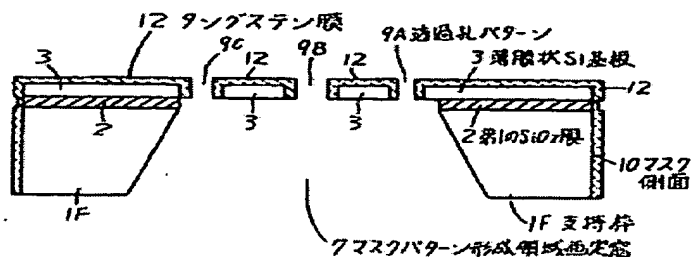
In re claim 17, Satoru discloses that the conducting member 12 is made of tungsten (Detailed Description, page 3, paragraph [0022]).

In re claim 18, Satoru discloses that the stencil mask according to claim 14, further comprising silicon or silicide formed on the surface of the conducting member (FIG. 2).

In re claim 19, Satoru discloses a stencil mask comprising: a conductive thin film 3 (Si) which has a first region (middle region) and a second region (peripheral region), the first region including a plurality of first openings 9A-C; an insulating film 2 formed corresponding to the second region of the conductive thin film 3 (Detailed Description, page 3, paragraph [0021] and FIG. 1);

【図 1】

本発明に係る透過マスクの一実施例の模式断面図



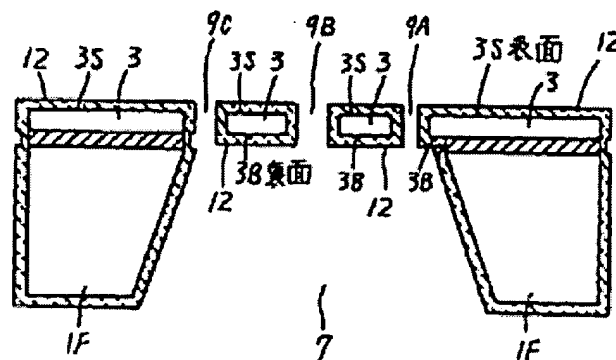
a conductive support 1f formed on the insulating film 2; a second opening 7 made in the conductive thin film 3 and the insulating film 2 in the second region of the



conductive thin film; and a conducting member 12 which is formed on the surface of the conductive thin film 3 and in the second opening 7 and which connects the conductive thin film 3 and the conductive support 1f electrically (Detailed Description, pages 3-4, paragraph [0022] and FIG. 2).

【図 2】

本発明に係る透過マスクの他の実施例の模式断面図



In re claim 20, Satoru discloses that the electrical conductivity of the conducting member 12 (W) is higher than that of each of the conductive thin film 3 (Si) and the conductive support 1f (Si) (Detailed Description, pages 3-4, paragraphs [0021]-[0022]).

In re claim 21, Satoru discloses that the conductive thin film 3 and the conductive support 1f are made of silicon (Detailed Description, page 3 paragraph [0022]).

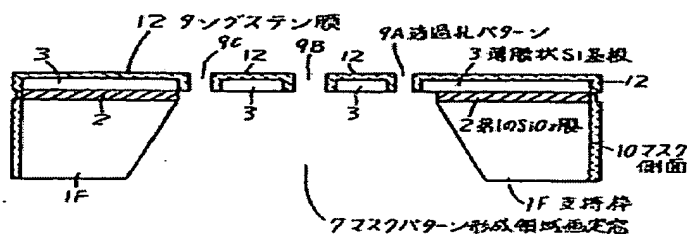
In re claim 22, Satoru discloses that the conducting member is made of tungsten (Detailed Description, page 3, paragraph [0022]).

In re claim 23, Satoru discloses that the stencil mask according to claim 19, further comprising silicon or silicide formed on the surface of the conducting member (FIG. 2).

In re claim 24, Satoru discloses a mask forming substrate comprising: a conductive thin film 3 (Si) having a first region (middle region) and a second region (peripheral region); an insulating film 2 (SiO<sub>2</sub>) formed on the conductive thin film 3 (Detailed Description, page 3, paragraph [0021] and FIG. 1);

【図 1】

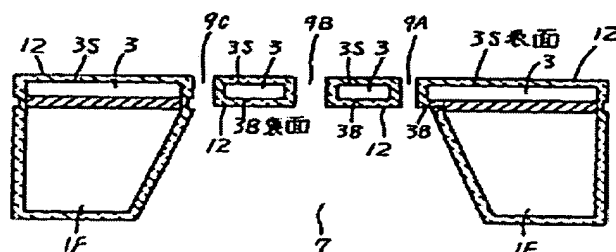
本発明に係る透過マスクの一実施例の模式断面図



a conductive support 1f formed on the insulating film; an opening 7 made in the conductive support 1f and a region of the insulating film 2 corresponding to the second region of the conductive thin film 3; and a conducting member 12 which is formed in the opening 7 and which connects the conductive thin film 3 and the conductive support 1f electrically (Detailed Description, pages 3-4, paragraph [0022] and FIG. 2).

【図 2】

本発明に係る透過マスクの他の実施例の模式断面図



In re claim 25, Satoru discloses that the electrical conductivity of the conducting member 12 (W) is equal to or higher than that of each of the conductive thin film 3 (Si)

and the conductive support 1f (Si) (Detailed Description, pages 3-4, paragraphs [0021]-[0022]).

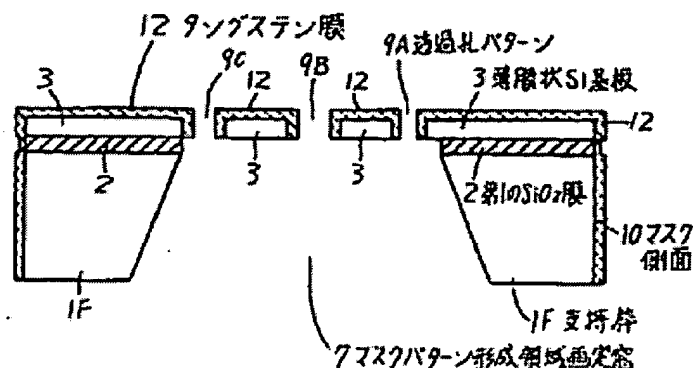
In re claim 26, Satoru discloses that the conductive thin film 3 and the conductive support 1f are made of silicon (Detailed Description, page 3, paragraph [0021]).

In re claim 27, Satoru discloses that the conducting member 12 is made of tungsten (W) (Detailed Description, page 3, paragraph [0022]).

In re claim 28, Satoru discloses a mask forming substrate comprising: a conductive thin film 3 (Si) having a first region (middle region) and a second region (peripheral region); an insulating film 2 ( $\text{SiO}_2$ ) formed on the conductive thin film 3; a conductive support 1f formed on the insulating film 2 (Detailed Description, page 3, paragraph [0021] and FIG. 1);

【図 1】

本発明に係る透過マスクの一実施例の模式断面図

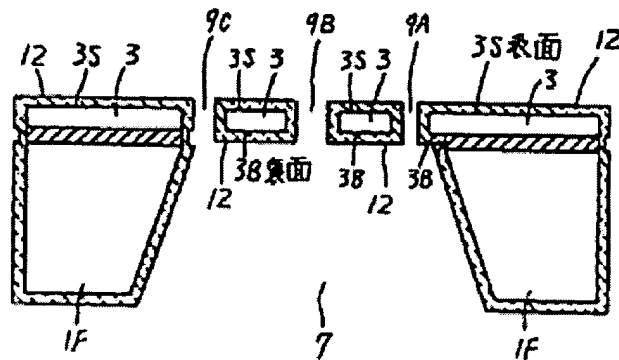


an opening 7 made in the conductive film 3 and a region of the insulating film 2 corresponding to the second region of the conductive thin film; and a conducting member 12 which is formed on the conductive thin film 3 and in the opening 7 and which

connects the conductive thin film 3 and the conductive support 1f electrically (Detailed Description, pages 3-4, paragraph [0022] and FIG. 2).

【圖 2】

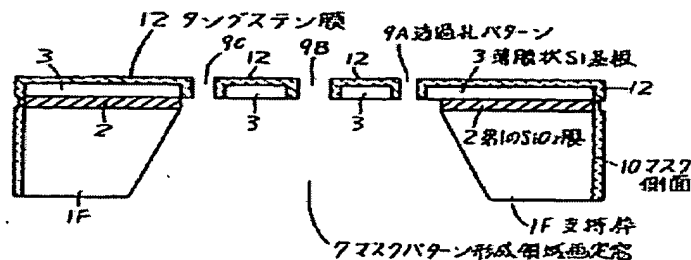
本発明に係る透過マスクの他の実施例の模式断面図



In re claim 35, Satoru discloses a mask forming substrate comprising: a conductive thin film 3 (Si) having a first region (middle region) and a second region (peripheral region); an insulating film 2 (SiO<sub>2</sub>) formed on the conductive thin film 3 (Detailed Description, page 3, paragraph [0021] and FIG. 1);

【图 1】

本発明に係る透過マスクの一実施例の模式断面図

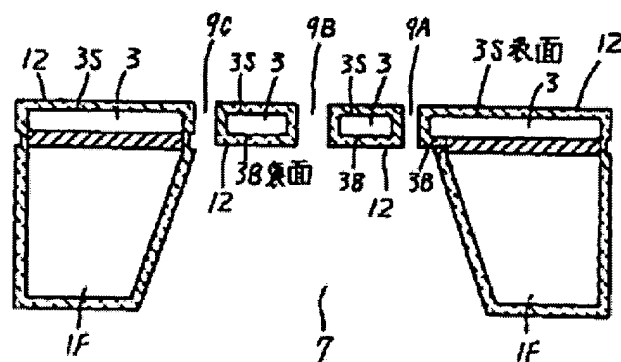


a conductive support 1f formed on the insulating film 2; an opening 7 formed in the conductive thin film 3 corresponding to the second region and the insulating film 2;

and a conductive member 12 which is formed in the opening 7 and which connects the conductive thin film 3 and the conductive support 1f electrically (Detailed Description, pages 3-4, paragraph [0022] and FIG. 2).

【図 2】

本発明に係る透過マスクの他の実施例の模式断面図



### Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khiem D. Nguyen whose telephone number is (571) 272-1865. The examiner can normally be reached on Monday-Friday (8:30 AM - 5:30 PM).

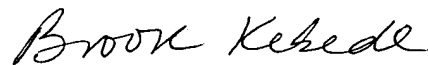
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew S. Smith can be reached on (571) 272-1907. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2823

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

K.N.

December 27, 2005

A handwritten signature in cursive script, reading "Brook Kebede".

**BROOK KEBEDE  
PRIMARY EXAMINER**